UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE, INC.
Petitioner

v.

IMMERVISION, INC.
("ImmerVision"),
Patent Owner

Case IPR2023-00471
Patent No. 6,844,990

DECLARATION OF DR. DAVID KESSLER, Ph.D.

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[27pre] A method for displaying a digital panoramic image, the method comprising:....61
[27a]: obtaining a digital panoramic image by projecting a panorama onto an image sensor using a panoramic objective lens,....67
[27b]: the panoramic objective lens having an image point distribution function that is not linear relative to a field angle of object points of the panorama, ...71
[27c] the distribution function having a maximum divergence of at least +/-10% compared to a linear distribution function, ...75
[27d]: such that the panoramic image obtained has at least one substantially expanded zone and at least one substantially compressed zone, and 78
[27e]: displaying the obtained panoramic image by correcting the non-linearity of the initial image,....81
[27f]: performed by retrieving image points on the obtained image in a coordinate system of center O' using at least the non-linear distribution function and a size L of the obtained image. 84
C. Claim 2 90
[2pre] The method according to claim 27:....91

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[2a] wherein the objective lens has a non-linear distribution function that is symmetrical relative to the optical axis of the objective lens, the position of an image point relative to the center of the image varying according to the field angle of the corresponding object point;.....91

D. Claim 4 94

[4pre]: The method according to claim 27:.....94

[4a]: wherein the objective lens expands the edges of the image and compresses the center of the image.....95

E. Claim 29 96

[29pre]: The method according to claim 27:.....97

[29a] wherein the objective lens comprises a set of lenses forming an apodizer. 97

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[29pre]/[30pre]: The method according to claim 27,.....104

[29a]: wherein the objective lens comprises a set of lenses forming an apodizer / [30a] wherein the set of lenses forming an apodizer comprises at least one aspherical lens. 105

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I. INTRODUCTION

1. My name is Dr. David Kessler, and I have been retained by counsel for Petitioner Apple, Inc. ("Apple" or "Petitioner") as an expert witness to provide assistance regarding U.S. Patent No. 6,844,990 (the "'990 Patent"). Specifically, I have been asked to consider the validity of claims 27, 2, 4, 29, and 30 of the '990 Patent ("Challenged Claims") in view of prior art, obviousness considerations, and understanding of a person of ordinary skill in the art at the time of the invention ("POSITA") as it relates to the '990 Patent

2. I am being compensated for my time at my standard consulting rate. I am also being reimbursed for expenses that I incur during the course of this work. My compensation is not contingent upon the results of my study, the substance of my opinions, or the outcome of any proceeding involving the challenged claims. I have no financial interest in the outcome of this matter or on the pending litigation between Petitioner and Patent Owner.

3. My analysis here is based on my years of education, research and experience, as well as my investigation and study of relevant materials, including those cited herein.

4. I may rely upon these materials, my knowledge and experience, and/or additional materials to rebut arguments raised by the Patent Owner. Further, I may

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